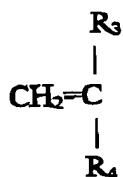


1. (Amended) In a liquid artificial nail composition comprised of one or more addition-polymerizable, ethylenically unsaturated monomers, which, when applied to the nail polymerize thereon to form an artificial nail structure having a thickness of greater than 10 mils, the improvement wherein the composition also contains a monoethylenically unsaturated vinyl monomer [that contains two or more carbonyl groups] having the general formula:

*Sub  
C1*



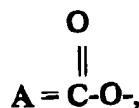
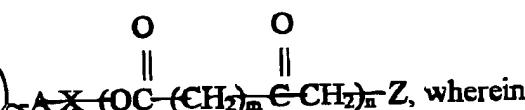
*B)*  
wherein R<sub>3</sub> is H, a C<sub>1-30</sub> straight or branched chain alkyl, aryl, aralkyl; and



wherein A = -C-O- or O-C-, X = C<sub>1-30</sub> straight or branched chain alkyl, m is 1 to 5, n is 1 to 30, y is 0 to 50; and Z = H or a C<sub>1-30</sub> straight or branched chain alkyl.

2. Cancel

*Sub C2 B2*  
**3. (Amended)** The composition of claim [2] 1 wherein R<sub>3</sub> is H or a C<sub>1-8</sub> alkyl, and R<sub>4</sub> is



X = C<sub>1-5</sub> alkylene

m = 1-5,

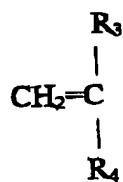
n = 1-5, and

Z = C<sub>1-10</sub> straight chain alkyl.

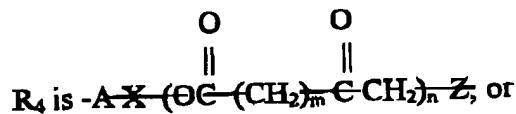
*Sub C3 B3*  
**5. (Amended)** The composition of claim 4 wherein [multicarbonyl-vinyl containing] monomer is acetoacetoxyethyl methacrylate.

*Sub C4 B4*  
**6. (Amended)** The composition of claim [2] 1 additionally comprising at least one other ethylenically unsaturated monomer.

*Sub C4 B4*  
**25. (Amended)** In a liquid artificial nail composition comprised of one or more ethylenically unsaturated monomers which are esters of acrylic or methacrylic acid and an aliphatic alcohol or ether-alcohol, which composition, when applied to the nail polymerizes thereon to form an artificial nail structure having a thickness of greater than 10 mils, the improvement wherein the composition also contains a monoethylenically unsaturated vinyl monomer [that contains two or more carbonyl groups] ] having the general formula:

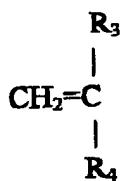


wherein  $\text{R}_3$  is H, a C<sub>1-30</sub> straight or branched chain alkyl, aryl, aralkyl and

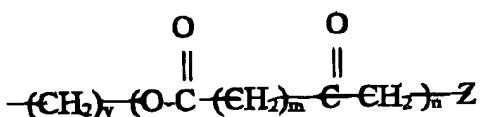
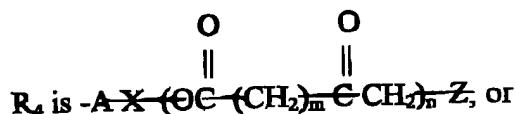


*(B1)*  
wherein A = -C-O- or O-C-. X = C<sub>1-30</sub> straight or branched chain alkyl, m is 1 to 5, n is 1 to 30, y is 0 to 50; and Z = H or a C<sub>1-30</sub> straight or branched chain alkyl.

26. (Amended) A polymerized artificial nail structure having a thickness of about 10-60 mils, and a modulus of elasticity of about 550-800 N/m<sup>2</sup>, comprising a copolymer of at least one ethylenically unsaturated monomer and a mult carbonyl vinyl-containing monomer having the general formula:

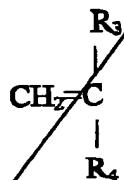


wherein R<sub>3</sub> is H, a C<sub>1-30</sub> straight or branched chain alkyl, aryl, aralkyl; and

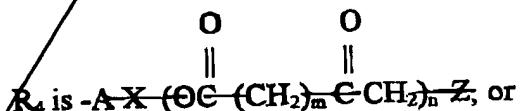


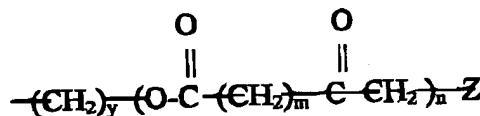
O O  
|| ||  
wherein A = -C-O-, or O-C-, X = C<sub>1-30</sub> straight or branched chain alkyl, m is 1 to 5, n is 1 to 30, y is 0 to 50, and Z = H or a C<sub>1-30</sub> straight or branched chain alkyl.

*BH*  
**27. (Amended)** A method for reducing, ameliorating, or eliminating delamination of an artificial nail structure from the natural nail surface, wherein said artificial nail structure is obtained by polymerizing on the natural nail surface a polymerizable monomer composition, comprising adding to said polymerizable monomer composition an effective amount of at least one mult carbonyl-vinyl containing monomer having the general formula:



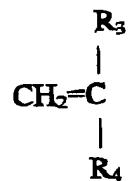
wherein R<sub>3</sub> is H, a C<sub>1-30</sub> straight or branched chain alkyl, aryl, aralkyl; and





X = C<sub>1-30</sub> straight or branched chain alkyl, m is 1 to 5, n is 1 to 30, y is 0 to 50; and Z = H or a C<sub>1-30</sub> straight or branched chain alkyl.

*B4*  
**28. (Amended)** A method for improving adhesion of an artificial nail structure to the nail surface, wherein the artificial nail structure has been applied by polymerizing on the nail surface a polymerizable monomer composition, comprising adding to said polymerizable monomer composition an effective amount of at least one mult carbonyl-vinyl containing monomer having the general formula:



wherein R<sub>3</sub> is H, a C<sub>1-30</sub> straight or branched chain alkyl, aryl, aralkyl; and

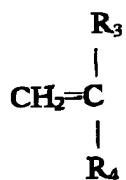
R<sub>4</sub> is -A-X-(O-C-(CH<sub>2</sub>)<sub>m</sub>-C-CH<sub>2</sub>)<sub>n</sub>-Z, or



1

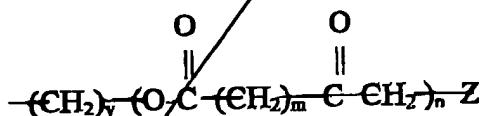
wherein  $A = -C-O-$ , or  $O-C-$ ,  $X = C_{1-30}$  straight or branched chain alkyl,  $m$  is 1 to 5,  $n$  is 1 to 30,  $y$  is 0 to 50; and  $Z = H$  or a  $C_{1-30}$  straight or branched chain alkyl.

**29. (Amended)** A method for reducing premature gelation of a liquid monomer composition containing at least one ethylenically unsaturated monomer, comprising adding to said composition an effective amount of at least one mult carbonyl-vinyl containing monomer having the general formula:



*(Handwritten mark: BK)*  
wherein  $R_3$  is  $H$ , a  $C_{1-30}$  straight or branched chain alkyl, aryl, aralkyl; and

$R_4$  is  $-AX-(OC-(CH_2)_m-C(CH_2)_n-Z$ , or



wherein  $A = -C-O-$ , or  $O-C-$ ,  $X = C_{1-30}$  straight or branched chain alkyl,  $m$  is 1 to 5,  $n$  is 1 to 30,  $y$  is 0 to 50; and  $Z = H$  or a  $C_{1-30}$  straight or branched chain alkyl.